

ABSTRACT OF THE DISCLOSURE

A block comprises physical addresses 0, 1, 2, 3.  
In an initial state, all the physical addresses 0, 1,  
2, 3 are in an erase state. When data LA0, LA1, LA2,  
5 LA3 are written in the physical addresses 0, 1, 2, 3,  
count values are "1", respectively. In this manner, a  
write/erase operation is performed by a page (physical  
address) unit, and the count value of the physical  
address in which the data has been renewed is renewed.  
10 Finally, when a total of the count values in the block  
reaches an allowable value 32, refresh is performed,  
and states of memory cells in the block are  
initialized.